California 9-1-1 Emergency Communications Office

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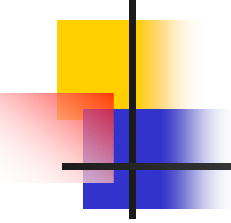
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Geographic Information Systems - Definition

A GIS is a collection of computer hardware, software and geographic data used to display all forms of geographically referenced information.

Three Primary GIS Components

- Map dataset
- Map display software
- Computer

Map Dataset

- Collection of digitized geographic information

- Accuracy is critical
  - Geo-referenced (latitude/longitude)
  - Geo-coded (street name/address)

Obtaining Map Datasets - 3 Options

- **Existing map datasets**
  - GIS or Planning Department
- **Commercial map datasets**
  - Updated periodically
  - Verify accuracy
- **Build map datasets from scratch**
  - Most accurate/expensive option

Map Display Software

- Provides display and navigation tools (zoom, pan)
- Display location of wireline or wireless 9-1-1 calls
- Track location of multiple 9-1-1 calls
- View layers (Roads, buildings, fire hydrants, PSAP boundaries, aerial photos)
- Track ANI/ALI, call routing and map errors

Computer

- Can be CAD, 9-1-1 IWS, or separate local or remote server

- Determined by features, cost and operational needs of PSAP

A Plan for GIS

- Obtain GIS expertise
- Partner with other local departments/PSAPs
- Locate existing datasets
  - Determine accuracy
- Determine data needs
  - Collection, accuracy, processing
- Compare dataset to MSAG and CAD

A Plan for GIS, cont.

- Determine GIS platform (CAD, IWS)
- Analyze and procure map display software
- Establish dataset maintenance process
- Share maps!

9-1-1 Program GIS Funding Policy

- **$15,000 per approved 9-1-1 position**
  - For Primary PSAPs who plan to answer wireless 9-1-1 calls
  - For Secondary PSAPs who will answer transferred wireless calls in 9-1-1 network
  - Those areas within one year of wireless implementation plan
  - Does not have to be spent in any particular year
  - One-time allotment

Items Approved for GIS Funding

- Aerial photographs, map datasets
- Software/hardware upgrades
- Software used to create/manipulate map datasets
- GIS consulting services
- Map creation, maintenance and verification
- Personnel time and training
- See Chapter 10, 9-1-1 Operations Manual for list of all approved items

GIS Funding Process

- PSAP requests funding in writing
- 9-1-1 Program sends pre-authorization letter to PSAP
- PSAP obtains price quotes and prepares GIS implementation plan
- PSAP submits price quotes and GIS implementation plan to State
- 9-1-1 Program sends Commitment to Fund form (TD-288) to PSAP
- PSAP proceeds with GIS implementation plan

GIS Funding Process, cont.

- Funding method will differ depending on method of purchase
  - GIS purchases concurrent with CPE upgrade
  - GIS purchases not concurrent with CPE upgrade, or from vendor not on State's Master Purchase Agreement

Questions?

John Marengo, State 9-1-1 Office

Wireless E9-1-1 and GIS

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http://www.td.dgs.ca.gov/Services/911/default.htm

Or

Contact your 9-1-1 Office Consultant!